

IN THE CLAIMS:

1. (Currently Amended) A closed locking ring for a device having a locking groove, wherein said locking ring includes an outer closed circumferentially continuous edge zone which slants at a first ~~an~~ angle relative to a plane that is normal to ~~towards~~ the axis of said locking ring in a state prior to installation and slants at a second angle to said plane in an installed state and a radially inner circumferentially interrupted engagement zone which slants at a first ~~an~~ angle relative to said plane that is normal to ~~towards~~ the axis of said locking ring in the state prior to installation and slants at a second angle to said plane in the installed state;

said first angle of said outer closed edge zone being substantially the same as said first angle of said radially inner circumferentially interrupted engagement zone in the state prior to installation and said second angle of said outer closed edge zone being different from said second angle of said radially inner circumferentially interrupted engagement zone in the installed state; and,

wherein in the installed state of the locking ring ~~after installation~~ at least a portion of said radially inner circumferentially interrupted engagement zone is permanently plastically deformed.

Claim 2 (Canceled).

3. (Currently Amended) The closed locking ring as defined in claim 1, wherein said second angle of said radially inner circumferentially interrupted engagement zone is less than said first and said second angles of said outer closed edge zone.

4. (Currently Amended) The closed locking ring as defined in claim 1, wherein said second angle of said outer closed edge zone is about 0°-40° after installation in the installed state of

said locking ring with said locking groove.

5. (Currently Amended) The closed locking ring as defined in claim 1, wherein said second angle of said radially inner circumferentially interrupted engagement zone is between and about 0°-20° in the installed state ~~after installation~~ of said locking ring with said locking groove.

6. (Currently Amended) The closed locking ring as defined in claim 1, wherein said second angle of said radially inner circumferentially engagement zone is greater than said second angle of said outer closed edge zone.

7. (Currently Amended) The closed locking ring as defined in claim 1, wherein said radially inner circumferentially interrupted engagement zone is axially and radially permanently plastically deformable and thereby adjusts to said locking groove; and,
said locking ring having a first inside diameter in the state prior to installation and a second inside diameter in the installed state, said first inside diameter greater than said second inside diameter.

Claims 8 (Canceled).

9. (Currently Amended) A closed locking ring for a device having a locking groove, wherein said locking ring includes an outer closed edge zone which slants at a first an angle relative to a plane that is normal to ~~towards~~ the axis of said locking ring in a state prior to installation and slants at a second angle to said plane in an installed state and a radially inner circumferentially interrupted engagement zone which slants at a first an angle relative to said plane that is normal to

~~towards~~ the axis of said locking ring in the state prior to installation and slants at a second angle to said plane in the installed state, said first slanting angle of said radially inner circumferentially interrupted engagement zone being about 15°-45° in the state prior to ~~before~~ installation of said locking ring with said locking groove; and,

said locking ring having a first inside diameter in the state prior to installation and a second inside diameter in the installed state, said first inside diameter is different from said second inside diameter wherein in the installed state ~~after installation~~ at least a portion of said radially inner circumferentially interrupted engagement zone is axially and radially permanently plastically deformed and thereby adjusts to said locking groove.

Claims 10 (Canceled).

11. (Currently Amended) The closed locking ring as defined in claim 9, wherein said first slanting angle of said radially inner circumferentially interrupted engagement zone is about the same as said first slanting angle of said outer closed edge zone.

12. (Currently Amended) The closed locking ring as defined in claim 9, wherein said second slanting angle of said radially inner circumferentially interrupted engagement zone is larger than said second slanting angle of said outer closed edge zone.

13. (Currently Amended) The closed locking ring as defined in claim 9, wherein said second slanting angle of said radially inner circumferentially interrupted engagement zone is less than said second slanting angle of said outer closed edge zone.

Claims 14-31 (Canceled).

32. (Currently Amended) A device having a circumferentially closed locking ring fixed axially in a groove of the device, said locking ring including an outer closed circumferentially continuous edge zone which slants at an angle relative to a plane that is normal to ~~towards~~ an axis of said locking ring and a radially inner circumferentially interrupted engagement zone which slants at an angle relative to said plane ~~towards the axis of said locking ring~~, said angle of said outer closed edge zone being substantially the same as said angle of said radially inner circumferentially interrupted engagement zone in a state prior to installation and said angle of said outer closed edge zone being different from said angle of said radially inner circumferentially interrupted engagement zone in an installed state, said device including a shaft, a shaft stub, a bore, or combinations thereof; and,

said locking ring having a first inside diameter in the state prior to installation and a second inside diameter in the installed state, said first inside diameter is different from said second inside diameter wherein in the installed state ~~after installation~~, said radially inner circumferentially interrupted engagement zone is axially and radially permanently plastically deformed and thereby adjusts to said locking groove.

33. (Currently Amended) The device as defined in claim 32, wherein said angle of said radially inner circumferentially interrupted engagement zone is less than said slanting angle of said outer closed edge zone in the installed state ~~after installation~~ of said locking ring in said groove.

34. (Currently Amended) The device locking ring as defined in claim 32, wherein said

slanting angle of said outer closed edge zone is ~~between~~ from about 0° to about ~~[[-]]~~40°.

35. (Currently Amended) The device as defined in claim 32, wherein said slanting angle of said radially inner circumferentially interrupted engagement zone is ~~between~~ from about 0° to about ~~[[-]]~~20°.

Claims 36-37 (Canceled).

38. (Original) The device as defined in claim 32, wherein the diameter of the device is larger on one side of the groove than on the other side so that an abutment or shoulder having an engagement zone is created for said radially inner circumferentially interrupted engagement zone of said locking ring.

39. (Original) The device as defined in claim 32, wherein said groove is nonrectangular shaped in cross-section.

40. (Original) The device as defined in claim 32, wherein a cross-section of said groove is tapered at least partly from its opening to its base.

Claims 41-63 (Canceled).

64. (Currently Amended) A closed locking ring for a device having a locking groove,

wherein said locking ring including an outer closed edge zone which slants at an angle relative to a plane that is normal to a central ~~towards the~~ axis of said locking ring and a radially inner zone which slants at an angle to said plane ~~towards the axis of said locking ring~~, said angle of said outer closed edge zone changing from a first angle to a second angle during installation of said locking ring, being different from said angle of said radially inner zone permanently changing from said first angle to a third angle during installation of said locking ring; and,

said locking ring having a first diameter before installation and a second diameter after installation, said first diameter is different from said second diameter wherein after installation said radially inner zone is axially and radially permanently plastically deformed and thereby adjusts to said locking groove.

65. (Currently Amended) The closed locking ring as defined in claim 64, wherein said third angle of said radially inner zone is less than said second angle of said outer closed edge zone.

66. (Currently Amended) The closed locking ring as defined in claim 64, wherein said second angle of said outer closed edge zone is ~~between~~ from about 0° to about ~~[[-]]~~40° after installation of said locking ring with said locking groove.

67. (Currently Amended) The closed locking ring as defined in claim 64, wherein said third angle of said radially inner zone is ~~between~~ from about 0° to about ~~[[-]]~~20° after installation of said locking ring with said locking groove.

68. (Currently Amended) The closed locking ring as defined in claim 64, wherein said third angle of said radially inner zone is greater than said second angle of said outer closed edge zone.

Claim 69 (Canceled).

70. (New) A closed locking ring for a device having a locking groove, wherein said locking ring includes, in a state prior to installation, an outer edge zone which slants from a plane perpendicular to the axis of said locking ring at an angle towards the axis of said locking ring, and a radially inner zone which slants from a plane perpendicular to the axis of said locking ring at an angle towards the axis of said locking ring, wherein the outer zone or the inner zone is an engagement zone for the an engagement with the locking groove, and wherein said angle of said outer edge zone is, in an installed state of the locking ring, different from said angle of said radially inner zone; and,

wherein, in the installed state of the locking ring at least a portion of said engagement zone slants at a permanently plastically deformed reduced angle towards the axis of said locking ring.